

Application No. 09/541,631 (Balkany) GAU 2172

Page 1 of 12 RECEIVED  
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## In the United States Patent and Trademark Office

JAN 29 2004

OFFICIAL

Application No: 09/541,631

Application Filed: 2000 Apr 4

Applicant: Alan Balkany

Title: Hierarchical Method for Storing Data with Improved Compression

Examiner/GAU: Baoquoc N. To/2172

Dated: 2004 Jan 29

From: Waterford, Michigan

## AMENDMENT A

Mail Stop Non-Fee Amendments  
Commissioner for Patents  
P.O. Box

Sir,

In response to the Office Action Mailed 2003 Oct 29, please amend the above application as follows and consider the following remarks:

## Certificate of Facsimile Transmission

I certify that on the date below I will fax this communication, and attachments if any, to Group 2172 of the Patent and Trademark Office at the following number: (703) 746-7239

Date: 2004 JAN 29

Inventor's Signature: Alan Balkany

Application No. 09/541,631 (Balkany) GAU 2172

Page 2 of 12

**Specification:**

On page 8, replace:

A1  
The tuple list (64) contains the single tuples corresponding to tokens 0, 1, and 11. The tuple run list (65) contains one run of nine tuples. *The run list, in this case, takes one ninth as much space as explicitly representing the nine tuples.*

With:

The tuple list (64) contains the single tuples corresponding to tokens 0, 1, and 11. The tuple run list (65) contains one run of nine tuples. The run length of tuple run list (65) is nine and describes multiple tuples with a single entry. *The run list, in this case, takes one ninth as much space as explicitly representing the nine tuples.*

On page 8, replace:

Each leaf represents a subset of values from its corresponding dictionary. This can be done, for example, with an array of counts, such that the nth count is the number of times the nth dictionary value occurs in the leaves input data sequence.

With:

Each leaf represents a subset of values from its corresponding dictionary. This can be done, for example, with an array of counts, such that the nth count is the number of times the nth dictionary value occurs in the leaves leaf's input data sequence.

On Page 10, replace:

A2  
Applying the swap operator a second time undoes the swap operation, in effect, backtracking to the previous state in the problem space. The "Delete" operator deletes an interior node, which is the inverse of the join operator, so can backtrack from a join. Backtracking allows the problem spaced to be searched for an acceptable design.

With:

A2  
Application No. 09/541,631 (Balkany) GAU 2172

Page 3 of 12

Applying the swap operator a second time undoes the swap operation, in effect, backtracking to the previous state in the problem space. The "Delete" operator deletes an interior node, which is the inverse of the join operator, so it can backtrack from a join. Backtracking allows the problem space to be searched for an acceptable design.

On page 13, replace:

A3  
(a) It can extend a tuple run.

With:

(a) It can extend a tuple run.

On page 13, replace:

(c) It may not do either 1 or 2, and is in the single-tuple list.

With:

(c) It may not do either 1(a) or 2(b), and is in the single-tuple list.

On page 14, replace:

A4  
(d) It may not do either 1 or 2, and the pair is not in the single-tuple list.

With:

(d) It may not do either 1(a) or 2(b), and the pair is not in the single-tuple list.